AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A surface treatment method characterized by treating a surface with a supercritical fluid, wherein

an ammonium hydroxide expressed by the formula (1) below is added as a co-solvent agent to said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %:

where each of R^1 to R^4 in the formula (1) independently denotes an alkyl group, hydroxy-substituted alkyl group, aryl group or hydrogen.

2. (Previously presented) The surface treatment method according to claim 1, wherein said surface has a structural body thereon.

3. (Previously presented) The surface treatment method according to claim 2, wherein said structural body is a fine structural body with a hollow portion, a micro electromechanical systems, or an electrode pattern.

4. (Previously presented) The surface treatment method according to claim 2, wherein said surface is that of a photomask utilized for lithography.

5. (Previously presented) The surface treatment method according to claim 1, wherein said supercritical fluid is carbon dioxide.

6. (Previously presented) The surface treatment method according to claim 1, wherein said supercritical fluid is further added with a surfactant material.

7. (Previously presented) The surface treatment method according to claim 6, wherein said surfactant material is a polar solvent.

8. (Currently Amended) A surface treatment method characterized by treating a surface with a supercritical fluid, wherein

an alkanolamine expressed by the formula (2) below is added as a co-solvent agent to said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %:

$$R^1\ R^2 - N - CH_2\ CH_2 - O - R^3 \quad \cdots (2)$$

where each of R^1 to R^3 in formula (2) independently denotes an alkyl group, hydroxy-substituted alkyl group, aryl group or hydrogen.

9. (Previously presented) The surface treatment method according to claim 8, wherein said surface has a structural body thereon.

10. (Previously presented) The surface treatment method according to claim 9, wherein said structural body is a fine structural body with a hollow portion, a micro electromechanical systems, or an electrode pattern.

11. (Previously presented) The surface treatment method according to claim 9, wherein said surface is that of a photomask utilized for lithography.

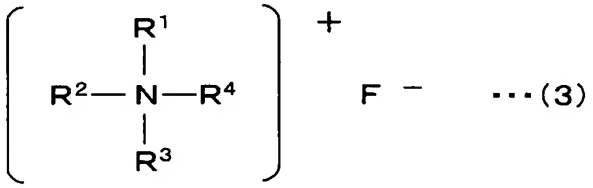
12. (Previously presented) The surface treatment method according to claim 8, wherein said supercritical fluid is carbon dioxide.

13. (Previously presented) The surface treatment method according to claim 8, wherein said supercritical fluid is further added with a surfactant material.

14. (Previously presented) The surface treatment method according to claim 13, wherein said surfactant material is a polar solvent.

15. (Currently Amended) A surface treatment method characterized by treating a surface with a supercritical fluid, wherein

an amine fluoride expressed by the formula (3) below is added as a co-solvent agent to said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %:



$$\left[R^2 - \underset{\displaystyle R^3}{\overset{\displaystyle R^1}{N}} - R^4 \right]^+ F^- \quad \cdots (3)$$

where each of R^1 to R^4 in the formula (3) independently denotes an alkyl group, hydroxy-substituted alkyl group, aryl group or hydrogen.

16. (Previously presented) The surface treatment method according to claim 15, wherein said surface has a structural body thereon.

17. (Previously presented) The surface treatment method according to claim 16, wherein said structural body is a fine structural body with a hollow portion, a micro electromechanical systems, or an electrode pattern.

18. (Previously presented) The surface treatment method according to claim 16, wherein said surface is that of a photomask utilized for lithography.

19. (Previously presented) The surface treatment method according to claim 15, wherein said supercritical fluid is carbon dioxide.

20. (Previously presented) The surface treatment method according to claim 16, wherein said supercritical fluid is further added with a surfactant material.

21. (Previously presented) The surface treatment method according to claim 20, wherein said surfactant material is a polar solvent.

22. (Currently Amended) A surface treatment method characterized by treating a surface with a supercritical fluid, wherein

hydrofluoric acid is added as a co-solvent agent to said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %.

23. (Previously presented) The surface treatment method according to claim 22, wherein said surface has a structural body thereon.

24. (Previously presented) The surface treatment method according to claim 23, wherein said structural body is a fine structural body with a hollow portion, a micro electromechanical systems, or an electrode pattern.

25. (Previously presented) The surface treatment method according to claim 23, wherein said surface is that of a photomask utilized for lithography.

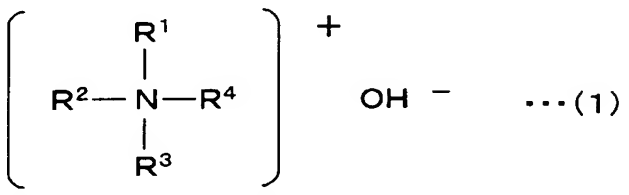
26. (Previously presented) The surface treatment method according to claim 22, wherein said supercritical fluid is carbon dioxide.

27. (Previously presented) The surface treatment method according to claim 22, wherein said supercritical fluid is further added with a surfactant material.

28. (Previously presented) The surface treatment method according to claim 27, wherein said surfactant material is a polar solvent.

29. (Currently Amended) A semiconductor device obtainable by a surface treatment method characterized by treating a surface with a supercritical fluid, wherein

an ammonium hydroxide expressed by the formula (1) below is added as a co-solvent agent to said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %:



$$\left[R^2 - \overset{\displaystyle R^1}{\underset{\displaystyle R^3}{N}} - R^4 \right]^+ \quad OH^- \qquad \cdots (1)$$

where each of R^1 to R^4 in the formula (1) independently denotes an alkyl group, hydroxy-substituted alkyl group, aryl group or hydrogen.

30. (Currently Amended) A semiconductor device obtainable by a surface treatment method characterized by treating a surface with a supercritical fluid, wherein

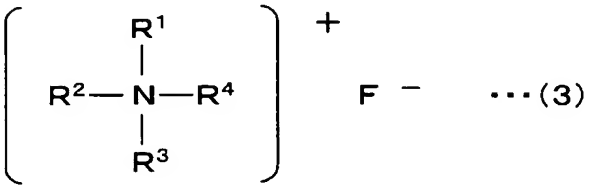
an alkanolamine expressed by the formula (2) below is added as a co-solvent agent to said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %:

$$R^1\ R^2 - N - CH_2\ CH_2 - O - R^3 \qquad \cdots (2)$$

where each of R^1 to R^3 in formula (2) independently denotes an alkyl group, hydroxy-substituted alkyl group, aryl group or hydrogen.

31. (Currently Amended) A semiconductor device obtainable by a surface treatment method characterized by treating a surface with a supercritical fluid, wherein

an amine fluoride expressed by the formula (3) below is added as a co-solvent agent to said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %:



$$\left[R^2 - \overset{\displaystyle R^1}{\underset{\displaystyle R^3}{\overset{|}{\underset{|}{N}}}} - R^4 \right]^+ \quad F^- \qquad \cdots (3)$$

where each of R^1 to R^4 in the formula (3) independently denotes an alkyl group, hydroxy-substituted alkyl group, aryl group or hydrogen.

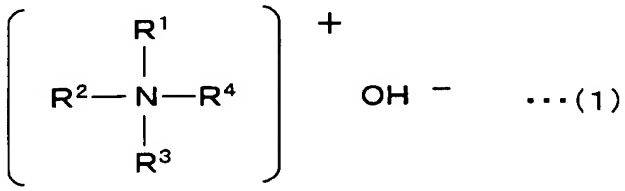
32. (Currently Amended) A semiconductor device obtainable by a surface treatment method characterized by treating a surface with a supercritical fluid, wherein

hydrofluoric acid is added as a co-solvent agent to said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %.

33. (Currently Amended) A method of fabricating a semiconductor device, said method comprising;

adding an ammonium hydroxide expressed by the formula (1) below as a co-solvent agent to a supercritical fluid, and

treating a surface of said semiconductor device with said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %:



$$\left[R^2 - \overset{\displaystyle R^1}{\underset{\displaystyle R^3}{\overset{|}{\underset{|}{N}}}} - R^4 \right]^+ \quad OH^- \qquad \cdots (1)$$

where each of R^1 to R^4 in the formula (1) independently denotes an alkyl group, hydroxy-substituted alkyl group, aryl group or hydrogen.

34. (Currently Amended) A method of fabricating a semiconductor device, said method comprising;

adding an alkanolamine expressed by the formula (2) below as a co-solvent agent to a supercritical fluid, and

treating a surface of said semiconductor device with said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %:

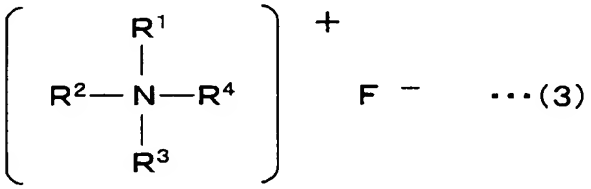
$$R^1\ R^2 - N - CH_2\ CH_2 - O - R^3 \quad \cdots(2)$$

where each of R^1 to R^3 in formula (2) independently denotes an alkyl group, hydroxy-substituted alkyl group, aryl group or hydrogen.

35. (Currently Amended) A method of fabricating a semiconductor device, said method comprising

adding an amine fluoride expressed by the formula (3) below as a co-solvent agent to a supercritical fluid, and

treating a surface of said semiconductor device with said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %:



$\cdots(3)$

where each of R^1 to R^4 in the formula (3) independently denotes an alkyl group, hydroxy-substituted alkyl group, aryl group or hydrogen.

36. (Currently Amended) A method of fabricating a semiconductor device, said method comprising;

adding hydrofluoric acid as a co-solvent agent to a supercritical fluid, and

treating a surface of said semiconductor device with said supercritical fluid so that the total amount of the addition of the co-solvent in proportion to the supercritical fluid of 40 degrees C. and 8 MPa is adjusted within a concentration range of 0.1 to 2 mol %.

37. (Canceled)

38. (Canceled)

39. (Canceled)

40. (Canceled)

41. (Canceled)

42. (New) The method according to claim 1 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

43. (New) The method according to claim 8 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

44. (New) The method according to claim 15 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

45. (New) The method according to claim 22 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

46. (New) The semiconductor device according to claim 29 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

47. (New) The semiconductor device according to claim 30 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

48. (New) The semiconductor device according to claim 31 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

49. (New) The semiconductor device according to claim 32 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

50. (New) The semiconductor device according to claim 33 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

51. (New) The semiconductor device according to claim 34 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

52. (New) The semiconductor device according to claim 35 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.

53. (New) The semiconductor device according to claim 36 wherein said proportion is adjusted to within a concentration range of 0.1 to 1 mol %.